LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended)

An infrared ray cut filter comprising:

a transparent substrate; and

a multilayer membrane including multiple high-refractive index thin membranes of a high-refractive index material and multiple low-refractive index thin membranes of a low-refractive index material, which are laid on said transparent substrate in an alternating fashion, said multilayer membrane having thin membrane layers of no less than 16 but no more than 32,

wherein:

a design wavelength λ for the thin membrane layers is 750 nm,

a ~~the~~ first layer of said multilayer membrane from a side of said transparent substrate is one of said high-refractive index thin membranes and is formed to have an optical thickness of no less than $\lambda/4$;

a ~~the~~ second layer of said multilayer membrane is formed to have an optical thickness of no less than $\lambda/4$;

each layer from a ~~the~~ third layer through a prescribed layer of said multilayer membrane is formed to have an optical thickness of no more than $\lambda/4$;

each layer sandwiched in between said prescribed layer and a ~~the~~ last layer of said multilayer membrane is formed to have an optical thickness of no less than $\lambda/4$; and

said last layer is one of said low-refractive index thin membranes and is formed to have an optical thickness of no more than $\lambda/4$;

~~where λ represents design wavelength~~.

Claim 2 (Currently Amended)

The infrared ray cut filter according to claim 1, wherein said prescribed layer is a ~~the~~ sixth or seventh layer of said multilayer membrane from the side of said transparent substrate.

Claim 3 (Original)

The infrared ray cut filter according to claim 1, wherein said low-refractive index thin membranes are made of TiO_2, and said high-refractive index thin membranes are made of SiO2 or MgF_2.

Claim 4 (Original)

The infrared ray cut filter according to claim 1, wherein a medium-refractive index thin membrane composed of a medium-refractive index material is disposed between said transparent substrate and said multilayer thin membrane.

Claim 5 (Original)

The infrared ray cut filter according to claim 1, wherein a medium-refractive index thin membrane composed of Al_2O_3 is disposed between said transparent substrate and said multilayer membrane.

Claim 6 (Original)

The infrared ray cut filter according to claim 1, wherein said filter has a light permeability characteristic wherein light permeability decreases gradually as the light wavelength increases from 550 nm to 750 nm.

Claims 7-12 (Canceled)